

REMARKS

This is in response to the Office Action that was mailed on October 16, 2006. Claims 1-10, 13, 15, 17 and 19 were pending in that action. All claims were rejected. With the present response, claims 1, 13, 15, 17 and 19 are amended. The remaining claims are unchanged.

Applicant hereby affirms the Examiner's indication in the Office Action that previous objections, as well as previous claim rejections under 35 U.S.C. §112, have now been withdrawn. Beginning on page 3 of the Office Action, the Examiner rejected claims under 35 U.S.C. §101. In response, Applicant has amended each pending independent claim in light of the Examiner's comments and suggestions. It is respectfully submitted that all pending claims are now in clear compliance with the standards of §101. Reconsideration and withdrawal of all §101 rejections are respectfully solicited.

The claims in the present case stand rejected in light of the obviousness standard embodied by 35 U.S.C. §103. According to §2142 of Manual of Patent Examining Procedure (M.P.E.P.), the examiner bears the initial burden of actually supporting any *prima facie* conclusions of obviousness. In order to establish a *prima facie* case of obviousness in instances where multiple references are cited in combination, the examiner must show (1) that a suggestion exists for combining the references, and (2) that the combined references teach or suggest all recited claim limitations. *Id.* For reasons that will be described in detail below, it is respectfully submitted that all of the rejections in the present case should be withdrawn because the Examiner has failed to establish any *prima facie* case of obviousness.

Beginning on page 4 of the Office Action, the Examiner rejected claims 1-8 and 10 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 7,027,987 ("the Franz reference") in view of U.S. Patent No. 6,393,399 ("the Even reference"), and further view of U.S. Patent Application No. 2003/0088547 ("the Hammond reference").

The Applicant respectfully submits that the hypothetical combination fails to teach the subject matter of independent claim 1. Moreover, Applicant also respectfully submits that the combination of the three references is improper.

Independent claim 1 requires, among other things, the concatenation of a plurality of characters to form at least one additional term, and providing the input string and the at least one additional term to the search process. It is respectfully pointed out that even if the transformation taught in the Even reference were applied to the identification of compound terms described in the Franz reference, there is still no teaching or suggestion in either reference that a non-transformed term should be advanced to a searching process along with the transformed version. The Office Action appears to concede as much in indicating, on page 6, that the combination of Franz et al. and Even fail to explicitly disclose the further limitation of providing the input string and the at least one additional term to the search process. The Office Action then turns to Hammond which allegedly provides the further limitation of providing the input string and the at least one additional term to the search process. The Office Action cites paragraph 0053, lines 14-18 of the Hammond reference providing this feature. However, variation resolver 50 of Hammond simply provides accepted or commonly used variations of particular terms. In the example given, the term "cholera" is referred to by its formal or full name of "vibrio cholerae." Accordingly, this is nothing more than a provision of synonyms to augment a search query. A set forth on page 2 of Applicant's specification,

"The effectiveness of the process of incorporating a synonym list is limited at least to the scope of the coverage of the list itself. The expansion of searches is limited to variations included in the synonym list. New expressions and common terminology will not initiate creation of expanded searches. It is also significant that the cost associated with maintaining a synonym list is relatively high. Generally speaking, such lists must be maintained, and expanded upon, through human interaction."

Accordingly, the Hammond reference can only be considered to teach the addition of words related to the queries that are based on *a priori* information relative to the search terms. It cannot be considered to teach or suggest a provision of an automatically derived concatenation of an additional term to the input query. To the extent that the Hammond reference is being construed to provide otherwise, Applicant respectfully submits that such construction is based on a firm understanding of Applicant's specification and is based on thus hindsight. The Federal

Circuit has held that rejecting patents solely by finding prior art corollaries for the claimed elements would permit an Examiner to use a claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention, which would be “an illogical and inappropriate process by which to determine patentability.” In re Roffet, 149 F3d 1350, 1357 (Fed. Cir. 1998). Accordingly, Applicant respectfully submits that the hypothetical combination fails to teach or suggest subject matter of independent claim 1.

Notwithstanding the above, Applicant further notes that independent claim 1 recites a method that includes receiving an input string that incorporates a plurality of characters separated by at least one space. An additional term is formed by concatenating the plurality of characters. The input string and its related additional term are provided to a claimed search process. A search result is displayed. As claimed, the displayed search result is identified by the search process as being related to the concatenated plurality of characters.

It is respectfully pointed out that none of the references cited by the Examiner teaches or suggests displaying a search result identified by a search process as being related to a concatenation of an input search string. The Hammond reference cited by the Examiner would seem to teach, at the most, a method of query expansion involving an addition of synonyms to a search string. However, there is absolutely no teaching or suggestion of displaying a search result as claimed. In light of the fact that the cited references, considered independently or in combination, fail to teach or suggest at least one element of claim 1, it is respectfully submitted that the Examiner has failed to establish a *prima facie* case of obviousness for that claim. For at least this reason, it is respectfully submitted that independent claim 1 is in allowable form. Claims 2-8 and 10 are dependent upon independent claim 1 and are believed to be in allowable form at least for the same reasons discussed above in relation to that affiliated independent claim.

Beginning on page 11 of the Office Action, the Examiner rejected claim 9 under 35 U.S.C. §103(a) as being unpatentable over the Franz reference in view of the Even reference in view of the Hammond reference, and further in view of a “College Algebra Tutorial” article (“the College Algebra article”). Claim 9 is dependent upon independent claim 1 and is believed to be in allowable form at least by virtue of its dependency from an independent claim that, for

reasons discussed above in detail, is believed to be itself allowable. Additionally, it is respectfully submitted that dependent claim 9 is allowable regardless of the patentability of the claim from which it depends.

In supporting the rejection of claim 9, the Examiner makes a statement on page 16 of the Office Action that the equation described in the College Algebra article factors in word adjacency. In fact, the article has nothing to do with word adjacency. There is no teaching or suggestion that the equation should be modified in any way to account for word adjacency.

It is respectfully submitted that it is unreasonable to assume that the equation associated with the College Algebra article would be applied, without further insight that is missing from the record, so as to provide search terms to a search process based upon word adjacency. Applicant again encourages the Examiner to review Applicant's specification at page 14. As is set forth in this portion of the specification, an algorithmic approach to an n-word search string includes generating all two-word combinations based on word adjacency. Then, all combinations are created, and the process is continued until a final n-word combination is created. The specification indicates that, "a method of generating search words listed above will generate an additional [n-1][n/2] search words for a given n-word search string input."

The Office Action indicates that the Franz/Even reference combination fails to explicitly teach the further limitation wherein the string includes n-words and wherein [n-1][n/2] additional search terms are provided to the search process. As set forth above, Applicant respectfully submits that the Hammond reference cannot be used to provide the function of providing additional search terms in this context. The Office Action then further asserts that the College Algebra article discloses a formula that provides the same results as the formula set forth in dependent claim 9. In particular, the Office Action asserts that if the variable r is set to 2, then the formula for combinations provides the same result as the formula [n-1][n/2]. The Office Action then further asserts that it would be obvious to one of ordinary skill in the art to set the variable r = 2 in order to create a subset in the same manner as using an equation such as [n-1][n/2] to create a subset. Respectfully, one skilled in the art would only set the value r = 2 if only two-word combinations were desired. In distinct contrast, the method described on page 14

of Applicant's specification includes generating a number of two-word combinations, three-word combinations, etc.

It is respectfully submitted that the fact that the results of the two equations (that of combinations when  $r$  is set to 2 and the formula set forth in dependent claim 9) is irrelevant. Claim 9 specifically recites additional search terms being provided based on word adjacency. Certainly, if the various combinations that could be conceived when  $r$  is set to 2 were derived, it would become apparent that word adjacency could not be maintained. Accordingly, Applicant respectfully submits that one skilled in the art would not set  $r = 2$  because at least some combinations include more than two words. Additionally, Applicant respectfully submits that the College Algebra article fails to teach or suggest maintaining word adjacency. Accordingly, Applicant respectfully submits that dependent claim 9 is allowable over the cited references considered independently or in combination.

Beginning on page 10 of the Office Action, the Examiner rejects claims 13, 15 and 19 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application No. 2004/0078366 ("the Crooks reference") in view of the Hammond reference.

Claim 13 is independent and recites a method wherein an input string is received and incorporates a plurality of characters separated by at least one hyphen. The hyphen is removed so as to form at least one additional term. The input string and the additional term are provided to a searching process. A search result is displayed. As claimed, the search result is identified by the search process as being related to a non-hyphenated version of the input string. Claim 15, which is also independent, is similar to claim 13 but involves displaying a search result identified by the search process as being related to a spaced version of a hyphenated input string. Claim 19, which is also independent, is similar to claim 13 but involves displaying a search result identified by a search process as being related to the additional term, which has particularly claimed characteristics.

It is respectfully pointed out that none of the cited references, considered independently or in combination, teach or suggest displaying a search result as claimed in independent claims 13, 15 and 19. The cited Hammond reference describes an expansion of a

query by adding synonyms to a query. However, neither the Hammond reference nor any of the other cited references teach or suggest displaying a search result as claimed. Thus, it is respectfully submitted that a *prima facie* case of obviousness has not been established relative any of these three independent claims. Accordingly, it is respectfully submitted that claims 13, 15 and 19 are in allowable form. Reconsideration and allowance of these claims are respectfully solicited.

On page 13 of the Office Action, the Examiner rejected claim 17 under 35 U.S.C. §103(a) as being unpatentable over the Franz reference in view of U.S. Patent Application No. 2004/0205672 (“the Bates reference”). Claim 17 is an independent claim. Independent claim 17 recites a method for making additional terms available to a searching process. The method includes receiving an input string that incorporates a plurality of characters separated by at least one space. At least one space is replaced with a hyphen to form at least one additional term. The additional term and the input string are provided to the searching process.

It is again pointed out that the rejection of claim 17 falsely characterizes the Franz reference. For example, the Examiner continues to point to column 8, lines 51-61 in association with a comment that this passage discloses providing additional search terms in the form of compound words. A close examination of this passage; however, reveals that, in fact, the Franz reference simply discloses transforming search terms. The Franz reference simply does not teach or suggest providing an input term to a searching process along with an additional term in which a space has been converted to a hyphen. The cited Bates reference does not remedy the failure of the Franz reference to teach or suggest the limitations of claim 17.

Further, as amended, claim 17 recites displaying a search result identified by the search process as being related to a hyphenated form of an input string. It is respectfully submitted that neither the Bates nor the Franz reference teach or suggest the claimed displaying of the search result. For all of these reasons, it is respectfully submitted that a *prima facie* case of obviousness has not been support.

In summary, for all of these reasons, it is respectfully submitted that claims 1-10, 13, 15, 17 and 19 are in allowable form. Reconsideration and favorable action is respectfully

solicited. The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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